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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Declan Kelly

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EXAMINER

HARVEY, DAVID E

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/528,933	Applicant(s) KELLY ET AL.	
	Examiner DAVID E. HARVEY	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-6,8 and 9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-6, 8, and 9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. The following “prior art” is noted:

A) US Patent Document #2002/004479918 to Sullivan:

Sullivan has been cited because, as illustrated in Figure 1, it evidences that it was well known in the art for a video distribution network to have comprised:

1) A transmitter (@102-108) for encoding/compressing a video content a reduced bit rate signals using conventional encoding format/scheme such as MPEG-2;

2) A communication link (@112) for conveying the encoded bit stream to a receiver (e.g., @110-116) wherein the communication link was known to have comprised any one of the following well known alternatives:

a) Physical cable;

b) Satellite link;

c) Terrestrial broadcast;

d) Internet connection; and/or

e) A physical recording medium such as a DVD;

3) The receiver (e.g., @110-116) which functions to decode the bit stream that is conveyed thereto and to display the decoded video content on a display screen thereof (@ 116).

[See paragraphs 0004 and 0005]

Sullivan also evidences that within such systems, it was known and conventional to have included additional information within encoded video content wherein the additional information defined at least one display region on the display device within which the encoded video content was to be displayed on the display screen, wherein this additional information included parameters defining the display location of the said display region. **[Note paragraphs 0042 and 0043]**

Sullivan further evidences that it was conventional to have used such an encoded stream to produce “picture-in-picture” effects. **[e.g., lines 10-14 of paragraph 0003]**

B) The "ISO/IEC 13818-2: 2000" (MPEG) standard:

The "ISO/IEC 13818-2: 2000" standard has been cited to evidence the fact that the notoriously well known MPEG standard itself, i.e., that referenced in the Sullivan discussed above, actually *provided for* the transmission and display of "small encoded pictures on a large display" wherein the small encoded pictures were displayed within a window whose size and position was specified via display format control signals/parameters conveyed with the small encoded pictures.

[e.g., Note: the last two lines under section "D.2.3 Display format control" on page 144 of said standard].

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- 2. The amendment filed 3/9/2009 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows:**

1) The amendment made on page 3 of the instant written description broadens the scope of the originally filed disclosure because it explicitly indicates that the disclosed "record carrier" includes "computer-readable mediums"; i.e., such a change in scope constitutes "new matter".

Applicant is required to cancel the new matter in the reply to this Office Action.

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3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claim 6 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

A) Lines 1-2 of claim 6 have been amended to recite a record carrier that is "in the form of a computer-readable medium". The recited "computer-readable medium" terminology is not supported by the specification as originally filed and appears to explicitly broaden the scope of the specification, as originally filed, beyond that which was originally described.

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5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. With respect to the arguments submitted 9/26/2008 concerning the applied prior art of Rosengren et al.:

On pages 11-12 of the response filed 9/26/2008, applicant argued:

"It should be apparent from the above that ***while Rosengren et al. disclose that the second video signal may be an auxiliary video signal absent P- and B-pictures, and having reduced spatial and temporal resolution, there is no disclosure that the size of an image formed by the auxiliary video signal is reduced.*** In fact, Rosengren et al. particularly states, with regard to the embodiment of Fig. 6 'In this embodiment, PIP-decoder 63 also takes the form of the circuit shown in FIG. 1, already discussed.' ***Hence, the auxiliary video signal still must need to have its size reduced by the PIP decoder 63***

In the subject invention, the second video signal as retrieved from the ***digital information signal already has a second size smaller than a first size of the first video signal***". (emphasis added).

The examiner disagreed with this position for the following reasons:

A) First, as was addressed in paragraph 2 of the Office action mailed 7/1/2008, video signals and video data, per se, have no image size. The size of the image is determined when it is displayed, and thus, by the display device itself. To the point, a given TV signal displayed in normal manner on a large screen TV will result in images of larger "size" than the **same TV signal** displayed in normal manner on smaller screen TV. Thus, the issue as to whether a given TV signal comprises "large" or "small" images and, more particularly, the issue as to whether the size of an image is changed is, for all intents and purposes, is confusing if not meaningless when discussed with respect to non-displayed video signals and video data.

B) The examiner again points out that Figure 6 of Rosengren represents two separate and distinct embodiments of a PIP type television receiver circuitry; i.e.

1) In the ***first embodiment***, video signal V2 of Figure 6 represents a full-size, full-resolution MPEG video signal that is process by the circuitry of Figure 1 to reduced its spatial and temporal resolution by extracting DC coefficients from the I-Frames thereof (note lines 19-22 of column 6); and

2) A ***second embodiment*** in which said signal V2 of Figure 6 represents already comprises the spatially and temporally reduced video signal "Va" generated, and transmitted thereto, via the circuitry of Figure 5 (note lines 19-22 of column 6).

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In this **second embodiment**, the PIP decoder (@ 63 of Figure 6) is simplified and does not scale the image as alleged by applicant (e.g., as noted in lines 28-32). Rather, the memory (@ 12) of Figure 1 changes the time based in which the pixels of the reduced size image is read from the memory (note lines 45-48 of column 3) and, most likely, increases the temporal/frame frequency of the video signal too.

Applicant's arguments filed 9/26/2008, as cited above, appear to be confusing the two separate and distinct embodiments described in Rosengren et al; i.e., particularly the operation of the PIP decoder of Figure 1 in the context of the respective embodiments.

C) The examiner maintains that the video signal "Va" described by Rosengren, the one comprised of the only of the DC coefficients of I-Frames, inherently *represents* video images of reduced size (i.e., images of 1/16 scale as shown in Figure 7B). This is because, as explicitly described in Rosengren et al, each of the DC coefficients of video signal "Va" is the average value of a respective 8x8 pixel block of a full resolution video image and therefor the DC coefficients of an I-frame image represent a video images that is down-sampled by a factor of 1/8 in both the horizontal and vertical directions (e.g., NOTE: lines 40-47 in column 3; lines 56-60 of column 6; and Figure 7B in Rosengren).

That such DC coefficients represent a reduced size images, if not expressly described in Rosengren et al itself (note lines 56-60 of column 6), is expressly discussed and addressed in U.S. Patent #7,471,834 to Sull et al [note lines 44-54 in column 3 thereof].

7. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over the showing of US Patent #6,741,617 to Rosengren et al. in view of US Patent Document #2002/004479918 to Sullivan and the "ISO/IEC 13818-2: 2000" (MPEG) standard.

A) Preface:

While not explicitly stated, the examiner maintains that the ancillary video signal (@ Va) produced by the circuitry of Figure 1 in Rosengren et al comprises/represent a video signal of reduced size images (e.g., 1/16 size). This is evidenced, for example, by the following:

- 1) That the PIP processing block (@ 63) of figure 6 is described, explicitly, as producing a video signal of reduced-size images [note 14-18 of column 5] and is described, explicitly, as taking the for of the circuitry of figure 1 [note lines 19-23 of column 5];
- 2) That each DC coefficient of the signal represent an average of 8x8 original pixels [note lines 43-45 of column 2];
- 3) That the video signal is described as being of reduced spatial and temporal resolution [note lines 30-32 of column 4];
- 4) That the video signal, when displayed, is illustrated as producing reduced size images (e.g., @ 90 of Figure 7B).

B) The showing of Rosengren et al.:

As shown in Figure 6, Rosengren et al describes a digital video receiving device that comprises:

- 1) A **receiving means**, e.g., not shown in the Figure, for receiving for receiving **a digital information signal** comprises of an **MPEG2 transport stream** (@ TS) from the transmitter side of the system and for providing the received information signal to a demultiplexer (@ 60);
- 2) A **first retrieval means** (e.g., @ 60) for receiving and retrieving a first full-size video signal (@ V1) from the digital information signal;
- 3) A **second retrieval means** (e.g., @ 60) for receiving and retrieving a second video signal (@ V2) from the digital information signal wherein the second video signal (@ V2) comprises:
 - a) In a first embodiment, a full size image signal, that converted/scaled at the receiver (@ 63) to a video signal

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(@ V2') representing reduced size PIP images [e.g., lines 14-23 of column 5]; or

b) In a *second embodiment*, an ancillary video signal that has already been converted scaled on the transmitter side of the system (e.g., @51 of Figure 5) so as represent the reduced sized PIP images [e.g., lines 23-26 of column 5];

wherein the recitations of claim 6 are met by said second embodiment;

4) **Signal combination means** (e.g., @64); and

5) **A display unit** (66);

wherein in the second embodiment, scaling of the second video signal is performed on the transmitter side of the system and, therefor, is "**unchanged**" by the receiver.

C) Differences:

Claim 1 differs from the system disclosed by Rosengren et al only in that claim 1 now recites:

1) That the digital signal includes a parameter signal indicative of the location at which the second video signal was to be overlaid; and

2) That the apparatus comprised "third retrieval means" for retrieving/extracting the parameter signal from the digital signal and controlling the combination means according thereto.

D) The showings of Sullivan and the "ISO/IEC 13818-2: 2000" (MPEG) standard:

Sullivan and the "ISO/IEC 13818-2: 2000" (MPEG) standard have been cited for the showings that were discussed above in paragraph 1 of this Office action. Specifically:

1) Sullivan evidences:

a) That it was known to have added "parameter information", on the transmitter side, to MPEG encoded video content to control the location at which the video content is displayed on the receiver side; and

b) That is was known to have used such transmitted content to produce PIP effects;

2) The cited "ISO/IEC 13818-2: 2000" (MPEG) standard, an updated version of that which is cited throughout the Rosengren et al reference itself, evidences that the MPEG format/scheme, that was used to convey the data stream in Rosengren et al, provided for the transmission of location information/parameters.

Obviousness:

The examiner contents that it would have been obvious to one of ordinary skill in the art to have modified the system disclosed by Rosengren et al, in accordance with the teachings of Sullivan, to have provided means for generating and providing "location parameter" information within the MPEG stream transmission for identifying the location(s) at which the PIP information therein was to be displayed/overlaid onto the main picture signal; i.e., wherein such a modification would have inherently required receiving/extracting circuitry on the receiving side to obtain the information from the data stream. Indeed, the cited "ISO/IEC 13818-2: 2000" (MPEG) document evidences that the MPEG format used in Rosengren et al actually provided for such a capability. Motivation for the modification being the ability to locate the pip pictures at the least obtrusive location.

8. Claims 3 and 5 rejected under 35 U.S.C. 103(a) as being unpatentable over the showing of US Patent #6,741,617 to Rosengren et al in view of US Patent Document #2002/004479918 to Sullivan and the "ISO/IEC 13818-2: 2000" (MPEG) standard for the same reason discussed above for claim 1.
9. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over the showing of US Patent #6,741,617 to Rosengren et al in view of US Patent Document #2002/004479918 to Sullivan and the "ISO/IEC 13818-2: 2000" (MPEG) standard for the same reason discussed above for claim 1.
- Additionally:**

As discussed above in part "A" of paragraph 1, Sullivan explicitly taught that a "record carrier" was one of various known communication link alternatives. In light of this teaching the examiner maintains that it would have been obvious to one of ordinary skill in the art to have implemented the communication link in Rosengren et al via a record carrier.

10. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over the showing of US Patent #6,741,617 to Rosengren et al. in view of US Patent Document #2002/004479918 to Sullivan and the “ISO/IEC 13818-2: 2000” (MPEG) standard for the same reason discussed above for claim 4.

The recited “computer-readable medium” reads on the communication link of the modified system set forth above with respect to claim 4.

11. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over the showing of US Patent #6,741,617 to Rosengren et al. in view of US Patent Document #2002/004479918 to Sullivan and the “ISO/IEC 13818-2: 2000” (MPEG) standard for the same reason discussed above for claim 1.
Additionally:

As shown in Figure 5 of Rosengren et al., the transmitter side of the modified system further comprised:

- 1) An **input means** (@50) for receiving a transport stream including:
 - a) A plurality of “other elementary streams” (e.g., @ E1, E2, E3) [note lines 50-53 of column 4]; and
 - b) A “second video signal” (e.g., Vm);
- 2) An **combining means** (@53) for combining said “other elementary streams (e.g., @ E1, E2, E3) and said “second video signal” (e.g., Vm) into the digital information signal (@ TS2);
- 3) An **output means** (not shown in the figures) for transmitting the digital information signal (@TS2) to the receiver circuitry of Figure 6 [i.e. the signal must be transmitted to the receiver side]; and
- 4) Video processing means (@ 51) for processing the “second video signal” to a processed second video signal (@ Va) representing a sequence of video images of reduced image size, wherein said processed second video signal is combined by the combining means.

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- 12. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over the showing of US Patent #6,741,617 to Rosengren et al. in view of US Patent Document #2002/004479918 to Sullivan and the “ISO/IEC 13818-2: 2000” (MPEG) standard for the same reason discussed above for claim 8. Additionally:**

As discussed above in part “A” of paragraph 1, Sullivan explicitly taught that a “record carrier” was one of various known communication link alternatives. In light of this teaching the examiner maintains that it would have been obvious to one of ordinary skill in the art to have implemented the communication link in Rosengren et al via a record carrier.

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13. The examiner hereby provides an English translation of Korean Patent Document #2001/004940 to Jo.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID E. HARVEY whose telephone number is (571) 272-7345. The examiner can normally be reached on M-F from 6:00AM to 3PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Marsha D. Banks-Harold, can be reached on (571) 272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/DAVID E HARVEY/

Primary Examiner, Art Unit 2621

DAVID E HARVEY
Primary Examiner
Art Unit 2621